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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,214	08/08/2001	Takaya Sato	001-03-033	4316
35870	7590	05/13/2004	EXAMINER	
APEX JURIS, PLLC 13194 EDGEWATER LANE NORTHEAST SEATTLE, WA 98125			MERCADO, JULIAN A	
			ART UNIT	PAPER NUMBER
			1745	

DATE MAILED: 05/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/807,214	Applicant(s) SATO ET AL.	
	Examiner Julian Mercado	Art Unit 1745	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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## DETAILED ACTION

### *Remarks*

This Office action is responsive to applicant's amendment filed February 17, 2004.

Claims 1-13 are pending.

### *Claim Rejections - 35 USC § 102 and 103*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayashi et al. (JP 8-287951).

Claims 1-5 and 11-13 are rejected under 35 U.S.C. 102(b) as anticipated by Bai et al. (U.S. Pat. 5,744,258)

Claims 6-10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hayashi et al. as applied to claims 1-5 above.

Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bai et al. as applied to claims 1-5 and 11-13 above, in view of Dahn et al. (U.S. Pat. 4,969,254)

The above rejections have been discussed in detail in the previous Office action. As the scope of the present claims are presented unamended from those considered in the previous Office action, the prior art rejections are maintained for the reasons of record and for the additional reasons to follow in response to applicant's salient arguments.

***Response to arguments against Hayashi et al.***

Applicant submits that the polyaniline in Hayashi et al. "relates to electronic conductivity and does not relate to ion-conductivity" [emphasis as submitted] while also citing A.G. MacDiarmid et al., Mol. Cryst. Liq. Cryst pp. 121 and 173. It appears to the examiner that applicant has failed to provide a copy of said article for the examiner's consideration.

Notwithstanding, the examiner asserts that the polyaniline polymer in Hayashi et al. relates to ion-conductivity especially in consideration of applicant's definition of an ion-conducting polymer as one which can dissolve lithium salts; in Hayashi et al. a lithium salt sulfonic-acid anion complex is easily permeated into the polymer active material. (refer to applicant's specification on page 12 section (f), see Hayashi et al. at par. [0006]) Additionally, Hayashi et al. teaches a criticality of the weight percentage of the active material, "[m]ore than 98wt%, there is a problem in respect of binding capacity or *ion conductivity*". (par. [0005], emphasis added) Clearly, ion-conductivity is a property inherently and explicitly disclosed in Hayashi et al.

***Response to arguments against Bai et al.***

Applicant submits the following:

Again, just like Hayashi et al., all the polymers listed in Bai et al., such as polyaniline, do not involve ion-conductivity. Bai et al. encapsulates "high-rate material" such as polyaniline and "high-energy material" such as Li, both of which are used as active materials.

This is not persuasive in view of Bai et al. specifically teaching that "the term 'encapsulated' should not be construed to mean completely sealing off the inner material from the environment by the outer coating material". (col. 3 line 30-33) Instead, Bai et al. teaches that "both materials are exposed to the electrolyte solution". (line 34-35)

***Response to arguments against Dahn et al.***

Applicant submits that no indication or suggestion is disclosed in Dahn et al. for press-sliding of the mixture in order to coat the ion conducting polymer on the surface of the active material. In reply, applicant is reminded that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). To this extent, the examiner maintains that at the time the invention was made employing a press-sliding step in *Bai et al.*'s invention [emphasis added] would have been obvious at least to the skilled artisan for reasons such as controlling the thickness of the deposited layer. (as taught by Dahn et al. in col. 4 line 60-62)

*Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Handwritten signature, possibly "jam", with a stylized flourish.



Patrick Ryan  
Supervisory Patent Examiner  
Technology Center 1700